LIDAR

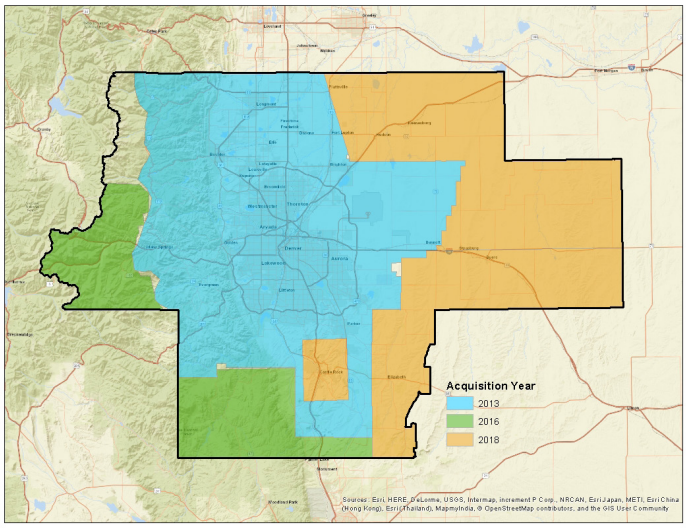
Description

The Denver Regional Council of Governments (DRCOG) facilitates the acquisition of light detection and ranging (lidar) data in the Denver region on an as-needed basis. Lidar projects are completed on behalf of local and regional organizations. Due to the expense of lidar data, state and federal partnerships are typically required to collect data.

At a glance

DRCOG lidar products adhere to the U.S. Geological Survey Lidar Base Specification, which outlines requirements for quality, accuracy and minimum deliverables that produce data that integrates with the existing national data set. Project requirements can be expanded to include such things as additional deliverables (for example contours, DSMs, RGB fusion), increased quality levels or enhanced classifications if funding is available.

Quality level:	QL2 Aggregate nominal pulse spacing (m): ≤ 0.71 Aggregate nominal pulse density (pls/m2): ≥ 2.0
Classification:	1: Processed but unclassified 2: Bare earth 7: Low noise 9: Water 17: Bridge deck 18: High noise 20: Ignored ground 21: Snow 22: Temporal exclusion
Deliverables:	Classified lidar point cloud Bare-earth digital elevation model First return intensity raster Breaklines Federal Geographic Data Committee metadata



Project history

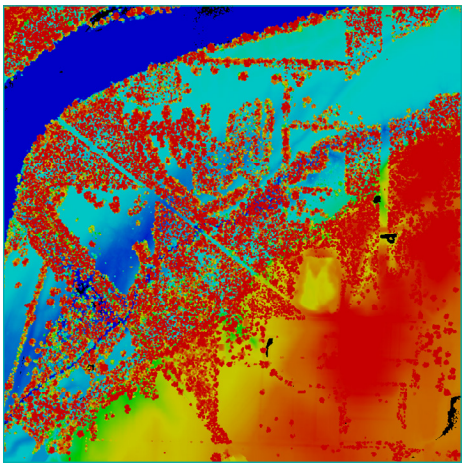
The most recent projects in the Denver region have been in 2013, 2016 and 2018. The 2013 project was an opportunistic collection that was made possible when the United States Geological Survey and Federal Emergency Management Agency were on-site to gather information related to catastrophic flooding. The federal agencies agreed to expand their data collection area to cover the Denver metro area for a relatively small fee from DRCOG and its partner organizations. In 2016 and 2018, the Colorado Water Conservation Board collected data in the Eastern Plains and Mountain West.

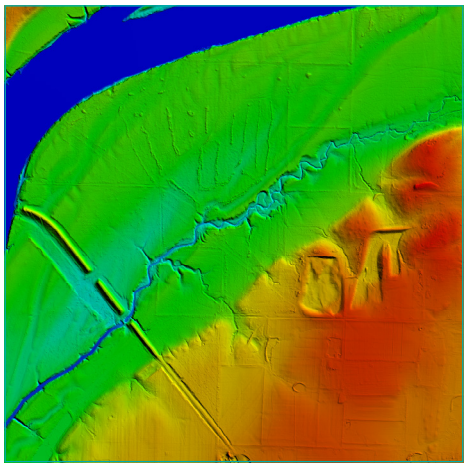
Data uses

Lidar data has many applications across the public, private, and academic sectors such as:

- identifying wildfire defensible space
- geological hazard identification and visualization
- project planning (trailheads, parking lots)
- viewshed/line of sight analysis
- visualizing 3D structures with realistic rooflines
- identification of historic features like trails, roads, building sites and plowed fields
- vegetation density mapping for forestry studies
- stream bed bathymetry

Data samples





Credit: Sanborn Map Company

More information

Visit the Governor's Office of Information Technology's website to download past LAS and DEM files. Contours (1-foot) can be downloaded from the Regional Data Catalog.

QUESTIONS?

Contact Ashley Summers, DRCOG information systems manager
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